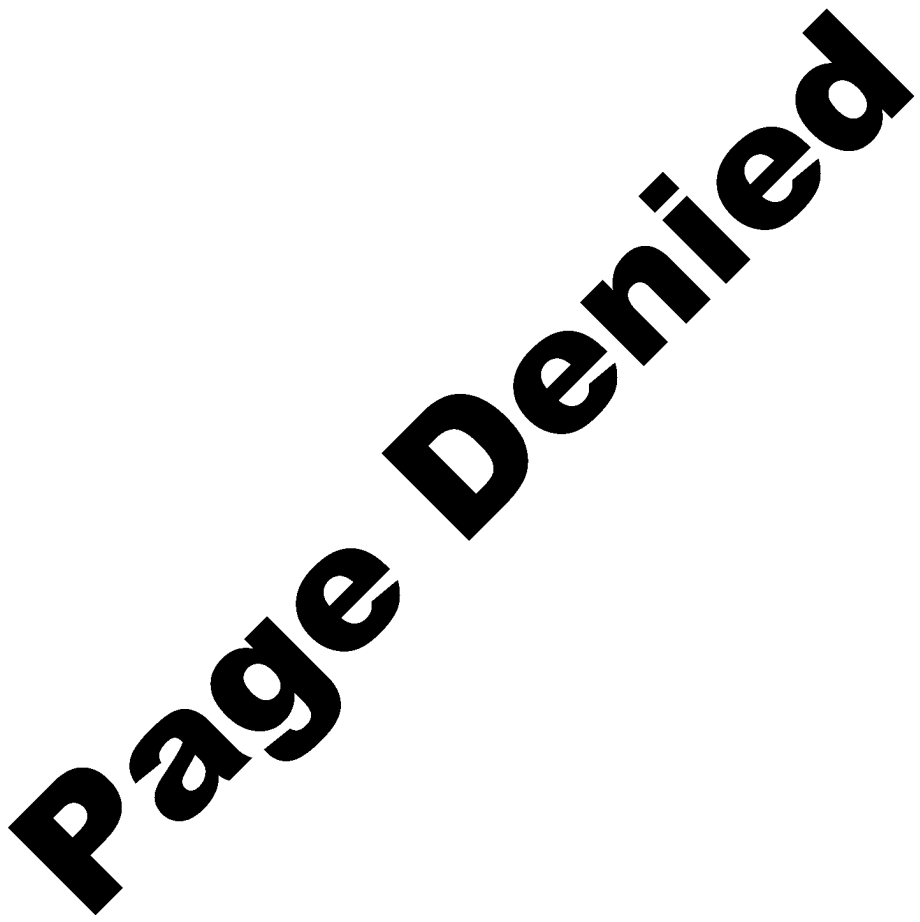

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26 February 1970

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MEMORANDUM FOR THE RECORD

SUBJECT: Steering Committee/ARGO Meeting, 28 January 1970

1. [redacted] and I attended the Steering Committee/ARGO Meeting on 28 January 1970. The meeting was held in Room 208 of the Executive Office Building. [redacted] chaired the meeting in the absence of [redacted] 25X1 25X1

2. The first item of business was a status report on the proposed study group (presented at the October 1969 meeting) concerned with identifying the skills, personnel and equipment needed for national disaster support. It was announced that [redacted] OEP, will head the group which is in the process of being formulated. The member agencies of ARGO were asked to name, by 10 February 1970, a representative from their respective offices. This study group will investigate the possibility of using the Reston, Va., TKH facility as a home for the exploitation effort and will pass the hat among the ARGO member agencies to obtain, by donation, the required personnel committed to disaster support on a first priority basis. There stands an established means of imagery collection, but the interpretation phase of the program is lacking. Establishment of a small component of photographic interpreters, foresters, geologists, etc. prepared to act immediately as required by a disaster situation, is the goal of the study group. Such a complement will work under the auspices of an interagency agreement. It was mentioned and agreed that the type of information needed would be disaster dependent and that the analyst component will also be concerned with data collection from other than reconnaissance sources. The study group will also be concerned with the compilation of a pre-disaster data base. Primary interest of the analysis group will be the establishment of procedures to provide instant analysis of disaster conditions as an input to the decision makers so they may take immediate action in providing disaster relief. Although the agencies themselves feel they did a 25X1

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good job in providing disaster situation analysis and aid following Hurricane Camille, the public is criticizing the national effort as being slow and disorganized. It is the intent of the study group to have a plan of action prepared by the time of the next ARGO meeting and to have the plan implemented before the rapidly approaching spring flood and storm season.

3. [redacted] presented a report on the status of the satellite coverage of Chile. This had been requested to furnish ground water information. He reported that [redacted] KH-4 coverage had been obtained but due to adverse weather conditions the amount of good coverage was limited. A memorandum outlining the results of the photographic interpretation analysis has been issued from NPIC. 25X1 25X1

4. The ARGO was then briefed on the data handling aspect of NASA's Earth Resources Satellite Program (ERS). The payload will consist of a High Resolution Television system (HRTV), a Four Channel Multispectral Point Scanner, and a ground station data monitoring system. The HRTV will provide continuous coverage of the United States in 100 mile (ground distance) formats at ground resolutions of 300 to 400 feet. Approximately 400 frames will be received in an 18 day period. The data processing equipment, however, must be capable of handling three HRTV images every 25 seconds when the satellite is on acquisition station over the United States. The Multispectral Scanner will provide imagery collected at the prescribed bandwidth, however, the resolution will not be as good as that obtained by the HRTV. Ground stations located throughout the US will sense such information as temperature, humidity, water level, etc. and transmit this data to the satellite which in turn will retransmit the information to the tracking station along with the video/scanner data. The satellite is capable of servicing as many as 1000 ground stations. Interrogation/control of the satellite will be accomplished by tracking stations at Greenbelt, Maryland, Fairbanks, Alaska, and Corpus Christi, Texas. The information will then be transmitted to NASA's Goddard Space Center (Greenbelt, Md.) for data processing. NASA has allocated 35,000 square feet of floor space to house the ERS data processing and operations control center.

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Two methods will be employed to process the imagery. The entire take of both video sensors will be bulk processed with about ten percent of the total coverage being precision processed to accommodate specific user requirements. The two methods differ in that the precision processed material will be rectified, of possibly better resolution and, in the case of the multispectral scanner, registered. The final output generated from the video sensor data will be a film print. NASA will record and store the video and multispectral point scanner image information on tape for about two years. The film (hard copy) print will be indexed and retained by NASA indefinitely. It appears now that the film print will receive the primary usage, however, participants may also request a data tape record of the coverage. Psuedo-real-time use of the video sensors will be possible but the resolution and orbital information may not be as good as available a short time later.

The ERS Program is extraordinary in that the output will be available to government as well as private and commercial users. Investigative proposals may come from almost anywhere, individual scientists, institutions, research foundations, industry, etc. The acceptance of proposals will be made by 15 April 1971. NASA has divided the users into two categories. Prime users, who will receive their film copy about 18 days after acquisition, will be government agencies. Private and commercial investigators are considered secondary users and will receive their film copy at a later date, about 30 days after acquisition. Domestic satellite video coverage will thus be available to almost any person or group on a secondary basis. In order to properly process the data, good orbital information is required and is expected to be available from the spacecraft by means of a narrow band channel. Some thought is being given to incorporate weather information with sensor programming to provide better utilization of the acquisition capability.

Although the satellite response is primarily real-time, two on-board recorders are incorporated in the system to provide a repository for acquisition data when the tracking stations cannot contact the bird. This will be especially useful for obtaining information from oceanographic areas beyond our coastal regions. During acquisitions

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over the United States, the data will be continuously monitored in order that improper commands can be rectified and parameters updated to better fit user requirements.

It was mentioned that it would be valuable if the photography obtained in the NASA underflight program (aircraft photography) could be indexed and made available for use as a data base for the ERS Program imagery. Funds, however, are not available to support this effort.

5. [redacted] of USGS, who heads a group of about 30 employees at the Reston, Virginia facility, announced that they were having reasonable success in domestic mapping utilizing KH-4 coverage but have come up with numerous small holiday areas scattered throughout the United States. His crew has approximately three or four months of work left before they run out of TK coverage and he questioned [redacted] about the availability of domestic U-2 coverage of the holiday areas. [redacted] would like vertical coverage taken with a framing camera employing a six-inch lens at U-2 operational altitudes. [redacted] had been advised of this pending inquiry and at his request I had looked into the problem. I informed [redacted] that since most of the U-2 domestic flights are for test purposes only, the DPs (if any) and the ONs are not permanently retained. The test footage still in existence is difficult to locate because individuals concerned with a particular test effort usually keep the material for their own purposes. I pointed out, however, that since U-2 test flights are made periodically, it may be possible to obtain the needed coverage upon his request through the proper channels. The SR-71 also conducts test flights which might be scheduled to obtain the coverage, however, the SR-71 is restricted in its flight path and may not be capable of employment for this effort. [redacted] request for support was channelled to [redacted] of the MC&G working group as he is in the best position to check into possible utilization of the SR-71. Should [redacted] not be able to [redacted] we volunteered to arrange a briefing for [redacted] on the different camera systems utilized in the U-2 aircraft and to work with him in order that he might obtain, if possible, the needed

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coverage. We will now wait and see what [redacted] can do before we take any action. 25X1

6. In keeping with present ARGO emphasis on data processing, [redacted] suggested that the next ARGO meeting be held at NPIC where a briefing be given to introduce the members to the Center's mission support data flow. He will, through [redacted] request a briefing on the Center's data handling methodology so that the ARGO might become cognizant of the data collection/processing and interpretation interface. Since most of the ARGO members are familiar with our organizational structure, the aim of the briefing is to show working level data flow and processing pertinent to the analysis of mission imagery. This encompasses the type and quantity of pre-recovery information employed for preliminary plotting, mission orbital characteristics, data required for breakdown of the original negative, confirmation of the telemetry data from the imagery, description of quantity and type of information required to be on line for the accomplishment of accurate mensuration and the post recovery data analysis/reduction required to update preliminary information and increase overall accuracies. The briefing should also tell when and how the data is obtained, processed and fits into the overall mission analysis. The meeting is tentatively planned for late February or early March. [redacted] has informed me that the meeting will be at NPIC on 9 March 1970). 25X1 25X1 25X1

7. A few days following the last ARGO meeting, [redacted] from the Department of Agriculture called to compliment us on the quality of the briefings he has received at NPIC. He was especially impressed by the quality of our viewgraphs and querried me concerning the method by which they are produced. His interest was to learn our "secrets" so he might improve the quality of his briefing materials. Since classification concerning our "secrets" in this area was no barrier, I was happy to pass them on. I informed him that the high quality of our briefing materials, including viewgraphs is the result of a competent, professional art department and an equally competent photographic laboratory. [redacted] stated that he had a feeling this was our "secret" but was hoping to learn a short cut method by which we achieve our high quality. I expressed the Center's regret that we don't have such a short cut but asked that should he find one would 25X1 25X1

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he please let us know. He agreed and thanked us for the information.

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NPIC/TSSG/APSD/IEB/Section I

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